

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

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In The Matter Of:

Hassayampa Landfill Superfund Site  
Maricopa County, Arizona

Honeywell Inc.

✓Bull HN Information Systems, Inc.

Digital Equipment Corporation

General Instrument Corporation

Shell Oil Company

American Tel. & Tel. (AT&T)

✓Alcatel Information Systems

Maricopa County

Arizona Public Service Company

Intel Corporation

American National Can Company

RESPONDENTS

Proceeding under Section 106(a) of  
Comprehensive Environmental Response,  
Compensation, and Liability Act of 1980,  
as amended by the Superfund Amendments  
and Reauthorization Act of 1986  
(42 U.S.C. §9606(a))  
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U.S. EPA  
Docket No. 93-09

ADMINISTRATIVE ORDER  
FOR REMEDIAL DESIGN ACTIVITIES

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1 I. INTRODUCTION AND JURISDICTION

2 1. This Order directs Respondents to perform certain  
3 remedial design activities for the remedy described in the Record  
4 of Decision ("ROD") dated August 6, 1992, for the Hassayampa  
5 Landfill Superfund Site. This Order is issued to Respondents by  
6 the United States Environmental Protection Agency ("EPA") under  
7 the authority vested in the President of the United States by  
8 section 106(a) of the Comprehensive Environmental Response,  
9 Compensation, and Liability Act of 1980, as amended ("CERCLA"),  
10 42 U.S.C. § 9606(a). This authority was delegated to the  
11 Administrator of EPA on January 23, 1987, by Executive Order  
12 12580 (52 Fed. Reg. 2926, January 29, 1987), and was further  
13 delegated to EPA Regional Administrators on September 13, 1987 by  
14 EPA Delegation No. 14-14-B. On October 26, 1988, this authority  
15 was re-delegated to the Director of the Hazardous Waste  
16 Management Division, EPA Region IX, by Order R1290.43.

17  
18 II. FINDINGS OF FACT

19 2. The Hassayampa Landfill ("Landfill") is located in a  
20 rural desert area in Maricopa County, Arizona, approximately 40  
21 miles west of Phoenix, Arizona. The Landfill occupies a 77-acre  
22 parcel owned by Maricopa County, of which at least 47 acres is  
23 actively used for disposal. Disposal of municipal and domestic  
24 waste began at the landfill in 1961 and has continued until the  
25 present.

26 3. During an 18 month period from April 20, 1979 to October  
27 28, 1980, disposal of hazardous waste was conducted on a 10-acre  
28 portion ("Hazardous Waste Area") of the northeast section of the  
29 Landfill under a manifest program operated by the Arizona  
30 Department of Health Services. For purposes of this Order, the  
31 Hassayampa Landfill Superfund Site ("Site") shall mean the 10-  
32 acre area of the Hassayampa Landfill where hazardous wastes are  
33 known to be disposed, as well as any areas where site-related  
34 contaminants have come to be located.

35 4. During this 18 month period, several million gallons of  
36 liquid hazardous substances and several thousand tons of

1 additional hazardous substances were disposed of in the Hazardous  
2 Waste Area. The hazardous substances were disposed of into  
3 unlined surface trenches or pits. Organic and oil wastes were  
4 deposited in Pit 1. Pit 2 was designated for acids and acid  
5 sludge. Pit 3 was used for the disposal of alkaline and metallic  
6 sludge. Pit 4 was designated for the disposal of pesticides and  
7 alkaline sludge. Separate areas known as the "Special Pit" areas  
8 were used for the disposal and burial of low volume solid wastes,  
9 containerized wastes and other incompatible wastes not acceptable  
10 for disposal in the other four pits.

11 5. Respondent Maricopa County is the current owner and  
12 operator of the Hassayampa Landfill. Maricopa County has  
13 operated Hassayampa Landfill as a municipal landfill since 1961  
14 and has owned the landfill since 1963. Maricopa County owned and  
15 operated the Hassayampa Landfill during the 18 month period that  
16 hazardous wastes were disposed of in the Hazardous Waste Area.

17 6. Various parties, including the following Respondents,  
18 arranged by contract or agreement, or otherwise, for the disposal  
19 of, or arranged with a transporter for transport for disposal of,  
20 hazardous substances that they owned or possessed: Honeywell  
21 Inc.; Bull HN Information Systems, Inc.; Digital Equipment  
22 Corporation; General Instrument Corporation; Shell Oil Company;  
23 American Tel. & Tel. (AT&T); Alcatel Information Systems; Arizona  
24 Public Service Company; Intel Corporation; and American National  
25 Can Company. Hazardous substances of the same kind as those  
26 owned or possessed by the Respondents identified in this  
27 Paragraph are present at the Site.

28 7. Pursuant to section 105 of CERCLA, 42 U.S.C. § 9605, EPA  
29 placed the Hassayampa Landfill on the National Priorities List,  
30 set forth at 40 C.F.R. Part 300, Appendix B, by publication in  
31 the Federal Register on July 21, 1987 (52 Fed. Reg. 140).

32 8. EPA and certain Respondents (Honeywell Inc., Bull HN  
33 Information Systems, Inc., Digital Equipment Corporation, General  
34 Instrument Corporation, Shell Oil Company, AT&T, Alcatel  
35 Information Systems and Maricopa County) entered into an

1 Administrative Consent Order (Docket No. 88-08) executed on April  
2 8, 1988 by the Director of the Hazardous Waste Management  
3 Division, U.S. EPA Region IX. Administrative Consent Order #88-  
4 08 allowed those Respondents identified in this Paragraph to  
5 conduct, under EPA direction and oversight, a Remedial  
6 Investigation ("RI") and Feasibility Study ("FS").

7 9. The Respondents identified in Paragraph 8 commenced a  
8 RI/FS at the Site in 1988 pursuant to 40 C.F.R. § 300.430. On  
9 April 4, 1991, EPA approved the RI submitted by these  
10 Respondents. On May 20, 1992, EPA approved the FS submitted by  
11 these Respondents.

12 10. Results of sampling and analysis conducted during the  
13 RI at the Site revealed that the groundwater at the Site is  
14 contaminated by volatile organic compounds (VOCs), and that the  
15 soil at the Site is contaminated by VOCs and semi-volatile  
16 organic compounds (SVOCs). This sampling also indicated that  
17 elevated levels of VOCs are present in the soil gas in portions  
18 of the Special Pit areas, in the vicinity of Pit 1 and in the  
19 area to the north of Pit 1.

20 11. The hazardous substances detected in the soil at the  
21 Site above Arizona Health-Based Guidance Levels include: 1,1-  
22 dichloroethene; 1,2-dichloropropane; tetrachloroethene; 1,1,1-  
23 trichloroethane and trichloroethene.

24 12. The hazardous substances detected in the groundwater at  
25 the Site above clean-up levels include: 1,1-dichloroethene;  
26 1,1,1-trichloroethane; tetrachloroethene; trichloroethene; 1,2-  
27 dichloroethane; and 1,2-dichloroethene.

28 13. EPA completed a risk assessment at the Site on  
29 September 12, 1991, to determine the health risks associated with  
30 the release of hazardous substances from the Site. The risk  
31 assessment examined pathways of current and future exposure at  
32 the Site. Under the current land-use scenario, the nearest off-  
33 site residence is about 1000 meters to the south of the Site.  
34 The risk assessment found that a current off-site receptor  
35 located at a distance of a thousand meters downwind and

1 downgradient from the Site is not presently exposed to an excess  
2 cancer risk through air and groundwater pathways extending from  
3 the Site. The risk assessment did suggest, however, that if the  
4 groundwater were allowed to continue to migrate it could present  
5 an excess cancer risk primarily due to exposure (through drinking  
6 and showering) to 1,1-dichloroethene in the groundwater. The  
7 population potentially exposed in the future to this excess  
8 cancer risk includes users of the groundwater in the vicinity of  
9 the Site. Within a three mile radius of the Site 349 groundwater  
10 wells have been identified, 172 of which potentially service  
11 individual residences.

12 14. The risk assessment conducted by EPA also considered  
13 the risk associated with future on-site residential use of the  
14 landfill property. Under the future-use scenario, exposed  
15 populations are assumed to be present on-site and domestic wells  
16 are assumed to be installed on-site. Although the risk  
17 associated with ingestion and contact with on-site waste and soil  
18 was not evaluated quantitatively, due to the presence of  
19 chromium, lead, copper and the high levels of VOCs and SVOCs in  
20 several of the pits on-site, it was assumed that exposure to  
21 waste and soil left in place would result in unacceptable health  
22 risks for on-site residents. In addition, the risk assessment  
23 found that under the future on-site use scenario, there would be  
24 an excess cancer risk due to exposure to 1,1-dichloroethene in  
25 the air and groundwater at the Site.

26 15. Pursuant to section 117 of CERCLA, 42 U.S.C. § 9617,  
27 EPA published notice of the completion of the FS and of the  
28 proposed plan for remedial action in the Buckeye Daily News on  
29 June 1, 1992, and provided opportunity for public comment on the  
30 proposed remedial action.

31 16. EPA's selection of the appropriate remedial action for  
32 implementation at the Hassayampa Site is embodied in a Record of  
33 Decision ("ROD"), executed on August 6, 1992, to which the State  
34 has given its concurrence. The Record of Decision is attached to  
35 this Order as Attachment 1 and is incorporated by reference. The

1 Record of Decision is supported by an administrative record that  
2 contains the documents and information upon which EPA based the  
3 selection of the response action.

4 17. The groundwater component of the remedy selected in  
5 EPA's ROD for the Site includes extraction of contaminated  
6 groundwater, treatment of the extracted groundwater by air  
7 stripping, reinjection of the treated groundwater in the vicinity  
8 of the Site and continued groundwater monitoring. This action  
9 will prevent the continued migration of the contaminated  
10 groundwater from the Site, and should ultimately restore the  
11 quality of the groundwater at the Site to the clean-up standards  
12 identified in the ROD.

13 18. The soil component of the remedy selected in EPA's ROD  
14 includes the implementation of deed and access restrictions in  
15 the Hazardous Waste Area to help prevent future contact with  
16 waste and soil in the Hazardous Waste Area. The remedy also  
17 includes soil vapor extraction to remove contaminated gas present  
18 within the subsurface soil. This action will help protect the  
19 groundwater by removing the contaminated gas before it is able to  
20 further contaminate the groundwater. A cap meeting the  
21 performance standards set out in the ROD will be placed over the  
22 Hazardous Waste Area to: prevent contact with the contaminated  
23 soil at the Site; improve the efficiency of the soil vapor  
24 extraction system; and limit the amount of water which can  
25 infiltrate, thereby reducing migration of soil contaminants to  
26 the groundwater.

### 27 28 III. CONCLUSIONS OF LAW AND DETERMINATIONS

29 19. The Hassayampa Landfill Superfund Site is a "facility"  
30 as defined in section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

31 20. Respondents are "persons" as defined in section  
32 101(21) of CERCLA, 42 U.S.C. § 9601(21).

33 21. Respondents are liable persons as defined in section  
34 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are subject to this  
35 Order under section 106(a) of CERCLA, 42 U.S.C. § 9606(a).



1           22. The substances listed in Paragraphs 11 and 12 are found  
2 at the Site and are "hazardous substances" as defined in section  
3 101(14) of CERCLA, 42 U.S.C. § 9601(14).

4           23. These hazardous substances have been and continue to be  
5 released from the Site into the soil, groundwater and air.

6           24. The past and present migration of hazardous substances  
7 from and within the Site constitutes a "release" as defined in  
8 section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

9           25. The potential for future migration of hazardous  
10 substances from and within the Site poses a threat of a "release"  
11 as defined in section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

12           26. The release and threat of release of one or more  
13 hazardous substances from the facility may present an imminent  
14 and substantial endangerment to the public health or welfare or  
15 the environment.

16           27. The contamination and endangerment at this Site  
17 constitutes an indivisible injury. The actions required by this  
18 Order are necessary to protect the public health, welfare, and  
19 the environment.

20  
21 **IV. NOTICE TO THE STATE**

22           28. On March 16, 1993, prior to issuing this Order, EPA  
23 notified the State of Arizona Department of Environmental Quality  
24 that EPA would be issuing this Order.

25  
26 **V. ORDER**

27           29. Based on the foregoing, Respondents are hereby ordered,  
28 jointly and severally, to comply with the following provisions,  
29 including, but not limited to, all attachments to this Order, all  
30 documents incorporated by reference into this Order, and all  
31 schedules and deadlines in this Order, attached to this Order, or  
32 incorporated by reference into this Order:

1  
2 VI. DEFINITIONS

3 30. Unless otherwise expressly provided herein, terms used  
4 in this Order which are defined in CERCLA, or in regulations  
5 promulgated under CERCLA, shall have the meaning assigned to them  
6 in the statute or its implementing regulations. Whenever terms  
7 listed below are used in this Order or in the documents attached  
8 to this Order or incorporated by reference into this Order, the  
9 following definitions shall apply:

10 a. "ADEQ" shall mean the Arizona Department of Environmental  
11 Quality and any successor departments or agencies of the State of  
12 Arizona.

13 b. "CERCLA" shall mean the Comprehensive Environmental  
14 Response, Compensation, and Liability Act of 1980, as amended, 42  
15 U.S.C. §§ 9601 et seq.

16 c. "Day" shall mean a calendar day unless expressly stated  
17 to be a working day. "Working day" shall mean a day other than a  
18 Saturday, Sunday, or Federal holiday. In computing any period of  
19 time under this Order, where the last day would fall on a  
20 Saturday, Sunday, or Federal holiday, the period shall run until  
21 the close of business of the next working day.

22 d. "EPA" shall mean the United States Environmental  
23 Protection Agency and any successor departments or agencies of  
24 the United States.

25 e. "Hassayampa Landfill" or "Landfill" shall mean the  
26 property owned by Maricopa County located in Maricopa County,  
27 Arizona, within the Southeast one-quarter of section 3, Township  
28 1 South, Range 5 West, about 40 miles west of Phoenix, Arizona;  
29 bounded on the east by Old Wickenburg Road, on the southwest by  
30 Salome Road and on the North by the east-west line bisecting  
31 section 3.

32 f. "Hazardous Waste Area" shall mean the 10-acre portion of  
33 the Hassayampa Landfill where hazardous wastes are known to be  
34 disposed.

1           g. "National Contingency Plan" or "NCP" shall mean the  
2 National Contingency Plan promulgated pursuant to section 105 of  
3 CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300,  
4 including, but not limited to, any amendments thereto.

5           h. "Operation and Maintenance" or "O&M" shall mean all  
6 activities required under the operation and maintenance manuals  
7 developed by Respondents pursuant to this Order and approved by  
8 EPA.

9           i. "Paragraph" shall mean a portion of this Order  
10 identified by an arabic numeral.

11           j. "Performance Standards" shall mean those cleanup  
12 standards, standards of control, and other substantive  
13 requirements, criteria or limitations, identified in the Record  
14 of Decision, the Scope of Work and Section IX below (Work To Be  
15 Performed), that the Work required by this Order must attain and  
16 maintain.

17           k. "Record of Decision" or "ROD" shall mean the EPA Record  
18 of Decision relating to the Site, signed on August 6, 1992, by  
19 the Regional Administrator, EPA Region IX, and all attachments  
20 thereto. The ROD is set forth in Attachment 1 to this Order.

21           l. "Respondents" shall mean the following parties:  
22 Honeywell Inc.; Bull HN Information Systems, Inc; Digital  
23 Equipment Corporation; General Instrument Corporation; Shell Oil  
24 Company; AT&T; Alcatel Information Systems; Maricopa County;  
25 Arizona Public Service Company; Intel Corporation; and American  
26 National Can Company.

27           m. "Response Costs" shall mean all costs, including direct  
28 costs, indirect costs, and accrued interest incurred by the  
29 United States to perform or support response actions at the Site.  
30 Response costs include but are not limited to the costs of  
31 overseeing the Work, such as the costs of reviewing or developing  
32 plans, reports and other items pursuant to this Order and costs  
33 associated with verifying the Work.

34           n. "Scope of Work" or "SOW" shall mean the scope of work to  
35 implement the Additional Investigation, Vadose Zone Treatability

1 Study and Groundwater Pilot Study at the Site, as set forth in  
2 Attachment 2 to this Order. Except for Appendix II of the Scope  
3 of Work (the Quality Assurance Project Plan), which EPA has not  
4 yet approved or disapproved, the Scope of Work and its appendices  
5 are incorporated into this Order and are an enforceable part of  
6 this Order.

7 o. "Section" shall mean a portion of this Order identified  
8 by a roman numeral and including one or more paragraphs.

9 p. "Site" shall mean the Hassayampa Superfund site, which  
10 shall mean the 10-acre area of the Hassayampa Landfill where  
11 hazardous wastes are known to be disposed, as well as any areas  
12 where site-related contaminants have come to be located.

13 q. "State" shall mean the Arizona Department of  
14 Environmental Quality and the Arizona Department of Water  
15 Resources, agencies of the State of Arizona.

16 r. "Supervising Contractor" shall mean the principal  
17 Contractor retained by the Respondents to supervise and direct  
18 the implementation of the Work under this Order.

19 s. "United States" shall mean the United States of America.

20 t. "Waste Material" shall mean: any "hazardous substance"  
21 under section 101(14) of CERCLA, 42 U.S.C. § 9601(14); any  
22 pollutant or contaminant under section 101(33), 42 U.S.C. §  
23 9601(33); and any "solid waste" under section 1004(27) of RCRA,  
24 42 U.S.C. § 6903(27).

25 u. "Work" shall mean all activities the Respondents are  
26 required to perform under this Order, including the Additional  
27 Investigation, Vadose Zone Treatability Study and the Groundwater  
28 Pilot Study, and any activities required to be undertaken  
29 pursuant to Sections VII through XXIII, and XXVI of this Order,  
30 but not including activities required to be undertaken pursuant  
31 to Section XXI of this Order (Record Preservation).  
32

1 VII. NOTICE OF INTENT TO COMPLY

2 31. Respondents shall provide, not later than fifteen (15)  
3 days after the date of EPA's mailing of this Order to  
4 Respondents, written notice to EPA's Remedial Project Manager  
5 (RPM) stating whether they will comply with the terms of this  
6 Order. If Respondents do not unequivocally commit to perform the  
7 Work required by this Order, they shall be deemed to have  
8 violated this Order and to have failed or refused to comply with  
9 this Order. Respondents' written notice shall describe, using  
10 facts that exist on or prior to the effective date of this Order,  
11 any "sufficient cause" defenses asserted by Respondents under  
12 sections 106(b) and 107(c)(3) of CERCLA. The absence of a  
13 response by EPA to the notice required by this paragraph shall  
14 not be deemed to be acceptance of Respondents' assertions.  
15

16 VIII. PARTIES BOUND

17 32. This Order shall apply to and be binding upon each  
18 Respondent identified in paragraphs 5 and 6, their directors,  
19 officers, employees, agents, successors, and assigns.  
20 Respondents are jointly and severally responsible for carrying  
21 out all activities required by this Order. Each Respondent shall  
22 communicate and cooperate with the other Respondents. No change  
23 in the ownership, corporate status, or other control of any  
24 Respondents shall alter any of the Respondents' responsibilities  
25 under this Order.

26 33. Respondents shall provide a copy of this Order to any  
27 prospective owners or successors before a controlling interest in  
28 Respondents' assets, property rights, or stock are transferred to  
29 the prospective owner or successor. Respondents shall provide a  
30 copy of this Order to the Supervising Contractor at the Site and  
31 shall condition all contracts entered into hereunder upon  
32 performance of the Work in conformity with the terms of this  
33 Order. Respondents or their Supervising Contractor shall provide  
34 written notice of this Order to all contractors, subcontractors,  
35 laboratories or consultants retained to perform any portion of

1 the Work required by this Order within fifteen (15) days after  
2 the mailing of this Order to Respondents or on the date such  
3 services are retained, whichever date occurs later. Respondents  
4 shall also provide a copy of this Order to each person  
5 representing any Respondents with respect to the Site or the Work  
6 and shall condition all contracts and subcontracts entered into  
7 hereunder upon performance of the Work in conformity with the  
8 terms of this Order. With regard to the activities undertaken  
9 pursuant to this Order, each contractor and subcontractor shall  
10 be deemed to be related by contract to the Respondents within the  
11 meaning of section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3).  
12 Notwithstanding the terms of any contract, Respondents are  
13 responsible for compliance with this Order and for ensuring that  
14 their contractors, subcontractors and agents comply with this  
15 Order, and perform any Work in accordance with this Order.

16 34. Within fifteen (15) days of the mailing of this Order,  
17 each Respondent that owns real property comprising all or part of  
18 the Site shall record a copy or copies of this Order (without  
19 attachments) in the appropriate governmental office where land  
20 ownership and transfer records are filed or recorded. Such  
21 Respondents shall, within 21 days after the mailing of this  
22 Order, send notice of such recording and within 60 days after  
23 mailing, such Respondents shall send proof of indexing to EPA.

24 35. Not later than sixty (60) days prior to any transfer of  
25 any real property interest in any property included within the  
26 Site, each Respondent that owns real property comprising all or  
27 part of the Site shall submit a true and correct copy of the  
28 transfer documents to EPA, and shall identify the transferee by  
29 name, principal business address and effective date of the  
30 transfer.

#### 31 32 IX. WORK TO BE PERFORMED

33 36. Respondents shall cooperate with EPA in providing  
34 information regarding the Work to the public. As requested by  
35 EPA, Respondents shall participate both in the preparation of

1 such information for distribution to the public and in public  
2 meetings which may be held or sponsored by EPA to explain  
3 activities at or relating to the Site.

4 37. All aspects of the Work to be performed by Respondents  
5 pursuant to this Order shall be under the direction and  
6 supervision of a qualified Supervising Contractor, the selection  
7 of which shall be subject to approval by EPA. Within 15 days  
8 after the effective date of this Order, Respondents shall notify  
9 EPA in writing of the name and qualifications of the Supervising  
10 Contractor proposed to be used in carrying out the Work under  
11 this Order. If at any time Respondents propose to use a  
12 different supervising contractor, Respondents shall notify EPA  
13 and shall obtain approval from EPA before the new supervising  
14 contractor performs any Work under this Order.

15 38. EPA will review Respondents' selection of a supervising  
16 contractor according to the terms of this paragraph and Section  
17 XIV of this Order. If EPA disapproves of the selection of the  
18 supervising contractor, Respondents shall submit to EPA within 30  
19 days after receipt of EPA's disapproval of the supervising  
20 contractor previously selected, a list of supervising  
21 contractors, including primary support entities and staff, that  
22 would be acceptable to Respondents. EPA will thereafter provide  
23 written notice to Respondents of the names of the potential  
24 supervising contractors that are acceptable to EPA. Respondents  
25 may then select any approved supervising contractor from that  
26 list and shall notify EPA of the name of the supervising  
27 contractor selected within twenty-one (21) days of EPA's  
28 designation of approved potential supervising contractors.

29 39. Respondents shall conduct an Additional Investigation  
30 at the Site in accordance with the SOW and the Additional  
31 Investigation Work Plan, which is attached to the SOW as Appendix  
32 I. The Additional Investigation shall include: completion of a  
33 shallow soil gas survey; construction, sampling and analysis of  
34 soil gas samples from vadose zone monitoring/extraction wells;  
35 characterization of the extent, depth from ground surface, and,

1 where possible, the thickness of the basaltic lava flow unit  
2 north of the Site; installation of groundwater monitoring wells;  
3 construction of vadose zone piezometers; collection of soil  
4 samples for physical and chemical analyses; collection and  
5 analyses of groundwater samples; vadose zone analytical modeling;  
6 and completion of an Additional Investigation Report.

7 40. As part of the Additional Investigation, Respondents  
8 shall submit to EPA for review and approval a Vadose Zone  
9 Modeling Report and an Additional Investigation Report.

10 Respondents shall also submit for EPA concurrence a Groundwater  
11 Monitoring Well Location Technical Proposal, a Periphery Boring  
12 Technical Proposal, a Vadose Zone Analytical Modeling Input  
13 Parameter Technical Proposal, and a Geophysical Survey Technical  
14 Proposal. The contents of these deliverables and proposals, as  
15 well as the schedules for their submittal and implementation, are  
16 set forth in the SOW. Respondents shall implement the Additional  
17 Investigation Work Plan in accordance with the schedule set out  
18 in the SOW.

19 41. The Respondents shall conduct drilling, construction  
20 and soil sampling activities in accordance with: the Remedial  
21 Investigation/Feasibility Study (RI/FS) Health and Safety Plan  
22 (RI/FS HASP) (CRA and M&A, 1987), and addendum thereto (1988);  
23 the RI/FS Quality Assurance Project Plan (RI/FS QAPP) and the  
24 RI/FS Sampling and Analysis Plan (RI/FS SAP) (CRA and M&A, 1988);  
25 the procedures given in the report on Results of the Supplemental  
26 Work (M&A, 1991); the EPA-approved scope of work (M&A, March 23,  
27 1992); and the report on Results for Vadose Zone Monitoring  
28 Borings (M&A, July 10, 1992). Groundwater and soil gas samples  
29 shall be collected in accordance with the Health and Safety Plan  
30 (HASP) attached to the SOW as Appendix III, and the Quality  
31 Assurance Project Plan (QAPP) which, upon approval by EPA, shall  
32 be added as Appendix II to the SOW. Once the QAPP has been  
33 approved by EPA, it shall be incorporated into this Order and  
34 become an enforceable part of this Order.



1           42. Respondents shall conduct a Vadose Zone Treatability  
2 Study as set forth in the SOW and the Treatability Study Work  
3 Plan, which is attached to the SOW as Appendix V. The Vadose  
4 Zone Treatability Study conducted by Respondents shall include  
5 Site-specific soil venting modeling and an on-Site treatability  
6 test using soil venting.

7           43. Following completion of the Vadose Zone Treatability  
8 Study, as described in the Vadose Zone Treatability Study Work  
9 Plan, Respondents shall submit to EPA for review and approval a  
10 Vadose Zone Treatability Study Report presenting the physical and  
11 analytical data obtained in the Treatability Study. The Vadose  
12 Zone Treatability Study Report submitted by the Respondents shall  
13 also document the input parameters to and results of vadose zone  
14 extraction modeling using an EPA-approved venting model, such as  
15 "VENTING" (Version 1.2).

16           44. Respondents shall implement the Vadose Zone  
17 Treatability Study and submit the Vadose Zone Treatability Study  
18 Report in accordance with the schedule set out in the SOW and the  
19 Treatability Study Work Plan. Respondents shall conduct the  
20 Vadose Zone Treatability Study in accordance with the QAPP and  
21 HASP.

22           45. Respondents shall conduct a Groundwater Pilot Study as  
23 set forth in the SOW. The scope of the Groundwater Pilot Study  
24 shall include the activities in section 3.3 of the SOW. The  
25 Groundwater Pilot Study shall utilize the preliminary design  
26 document entitled, "Modeling Results of Hydraulic Capture Zone  
27 Evaluations" (M&A, May 1992), which is attached as Appendix IV to  
28 the SOW.

29           46. As part of the Groundwater Pilot Study, the Respondents  
30 shall design and construct a cap over the 10-acre Hazardous Waste  
31 Area to: (i) reduce infiltration of water at the Site; (ii)  
32 reduce the release of VOC vapors to the atmosphere; (iii) improve  
33 the efficiency of the soil venting system; and (iv) to prevent  
34 direct contact with contaminated waste and soil left in place at  
35 the Site. The precise design and construction details of the cap

1 will be determined based on information collected during the  
2 Additional Investigation. The cap shall meet the Performance  
3 Standards set out in the ROD and the SOW that are applicable to  
4 the cap.

5 47. As part of the Groundwater Pilot Study, Respondents  
6 shall submit to EPA for review and approval a Design Report  
7 (which shall include a Groundwater Pilot Study Construction Work  
8 Plan), an Operation and Maintenance (O&M) Manual, a Groundwater  
9 Pilot Study Construction Inspection Report, a Cap Design Report  
10 (which shall include a Cap Construction Work Plan) and a Cap  
11 Construction Report. Respondents shall also submit a Groundwater  
12 Pilot Study Design Criteria Technical Memo and a Cap Design  
13 Criteria Technical Memo for EPA's concurrence.

14 48. As part of the Groundwater Pilot Study Construction  
15 Work Plan, Respondents shall submit and implement a Construction  
16 Quality Assurance Program to ensure that the completed  
17 Groundwater Pilot Study Construction meets or exceeds all design  
18 criteria, plans and specifications and Performance Standards.  
19 The Groundwater Pilot Study Construction Work Plan shall also  
20 include a Construction Contingency Plan, which includes Air  
21 Monitoring, Spill Control and Countermeasures Plans.

22 49. As part of the Cap Construction Work Plan, Respondents  
23 shall submit and implement a Construction Quality Assurance  
24 Program to ensure that the cap meets or exceeds all design  
25 criteria, plans, specifications and Performance Standards. The  
26 Cap Construction Work Plan shall also include a Construction  
27 Contingency Plan, which includes Air Monitoring, Spill Control  
28 and Countermeasures Plans.

29 50. Upon approval by EPA, the QAPP, the Vadose Zone  
30 Treatability Study Report, the Additional Investigation Report,  
31 the Vadose Zone Analytical Modeling Report, the Cap Design  
32 Report, the Cap Construction Report, the Groundwater Pilot Study  
33 Design, the Groundwater Pilot Study Construction Inspection  
34 Report and the Groundwater Pilot Study O&M Manual shall, to the

1 extent not inconsistent with this Order, be incorporated into  
2 this Order and shall be an enforceable part of this Order.

3 51. Respondents shall submit 3 copies to EPA and one copy  
4 to the State of all deliverables, technical proposals, technical  
5 memos, reports, documents, and data required under this Order or  
6 the SOW. All plans, reports and other documents submitted by  
7 Respondents to EPA and the State (other than the periodic  
8 progress reports referred to below) which are intended to  
9 document Respondents' compliance with the terms of this Order  
10 shall be signed by an authorized representative of the  
11 Respondents. The schedule for Respondents' submittal and  
12 implementation of the deliverables, technical proposals and  
13 technical memos, as well as the definitions of these terms, are  
14 set forth in the SOW.

15 52. Nothing in this Order shall be construed to relieve the  
16 Respondents of their obligation to achieve all Performance  
17 Standards set forth in the ROD and SOW. Notwithstanding any  
18 action by EPA, Respondents remain fully responsible for  
19 achievement of the Performance Standards set forth in the ROD and  
20 SOW. Nothing in this Order, or in EPA's concurrence in or  
21 approval of submissions under this Order, shall be deemed to  
22 constitute a warranty or representation that full performance of  
23 the Work will achieve the Performance Standards. Respondents'  
24 compliance with such documents does not preclude EPA from seeking  
25 additional work to achieve the applicable Performance Standards.

26 53. a. Respondents shall, prior to any off-site shipment  
27 of hazardous substances from the Site to an out-of-state waste  
28 management facility, provide written notification to the  
29 appropriate state environmental official in the receiving state  
30 and to EPA's RPM of such shipment of hazardous substances.  
31 However, the notification of shipments shall not apply to any  
32 off-Site shipments when the total volume of all such shipments  
33 will not exceed ten (10) cubic yards.

34 b. The notification shall be in writing, and shall  
35 include the following information, where available: (1) the name

1 and location of the facility to which the hazardous substances  
2 are to be shipped; (2) the type and quantity of the hazardous  
3 substances to be shipped; (3) the expected schedule for the  
4 shipment of the hazardous substances; and (4) the method of  
5 transportation. Respondents shall notify the receiving state of  
6 major changes in the shipment plan, such as a decision to ship  
7 the hazardous substances to another facility within the same  
8 state, or to a facility in another state.

9 c. The identity of the receiving facility and state,  
10 if any, will be determined by Respondents prior to shipment.  
11 Respondents shall provide all relevant information, including  
12 information under the categories noted in paragraph "b" above, on  
13 the off-Site shipments as soon as practicable before the  
14 hazardous substances are actually shipped.

15 54. Within thirty (30) days after Respondents conclude that  
16 all phases of the Work required by this Order have been fully  
17 performed, Respondents shall submit to EPA a written  
18 certification by a registered professional engineer stating that  
19 the Work has been completed in full satisfaction of the  
20 requirements of this Order. EPA shall require such additional  
21 activities as may be necessary to complete the Work (including  
22 any activities deemed necessary by EPA to assess whether the Work  
23 has been completed) or EPA may, based upon present knowledge and  
24 Respondents' certification to EPA, issue written notification to  
25 Respondents that the Work required by this Order has been  
26 completed. The provisions of this Order shall be deemed  
27 satisfied upon Respondents' receipt of written notice from EPA  
28 that Respondents have demonstrated, to the satisfaction of EPA,  
29 that all of the Work required by this Order, including any  
30 additional tasks which EPA has determined to be necessary, have  
31 been completed. EPA's notification shall not limit EPA's right  
32 to perform periodic reviews pursuant to section 121(c) of CERCLA,  
33 42 U.S.C. § 9621(c), or to take or require any action that in the  
34 judgment of EPA is appropriate at the Site, in accordance with 42  
35 U.S.C. §§ 9604, 9606, or 9607.

1       **X.           FAILURE TO ATTAIN PERFORMANCE STANDARDS**

2           55. In the event that EPA determines that additional  
3 response activities are necessary to meet applicable Performance  
4 Standards, EPA may notify Respondents that additional response  
5 actions are necessary.

6           56. Unless otherwise stated by EPA, within sixty (60) days  
7 of receipt of notice from EPA that additional response activities  
8 are necessary to meet any applicable Performance Standards,  
9 Respondents shall submit for approval by EPA a work plan for the  
10 additional response activities. The plan shall conform to the  
11 applicable requirements of Sections IX, XVI, and XVII of this  
12 Order. Upon EPA's approval of the plan pursuant to Section XIV,  
13 Respondents shall implement the plan for additional response  
14 activities in accordance with the provisions and schedule  
15 contained therein.

16  
17       **XI.          EPA PERIODIC REVIEW**

18           57. Under section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and  
19 any applicable regulations, EPA may review the Site to assure  
20 that the Work performed pursuant to this Order adequately  
21 protects human health and the environment. Respondents shall  
22 conduct the requisite studies, investigations, or other response  
23 actions as determined necessary by EPA in order to permit EPA to  
24 conduct the review under section 121(c) of CERCLA. As a result  
25 of any review performed under this Paragraph, Respondents may be  
26 required to perform additional Work or to modify Work previously  
27 performed.

28  
29       **XII.        ADDITIONAL RESPONSE ACTIONS**

30           58. EPA may determine that in addition to the Work  
31 identified in this Order and attachments to this Order,  
32 additional response activities may be necessary to protect human  
33 health and the environment. If EPA determines that additional  
34 response activities are necessary, EPA may require Respondents to  
35 submit a work plan for additional response activities. EPA may

1 also require Respondents to modify any plan, design, or other  
2 deliverable required by this Order, including any approved  
3 modifications.

4 59. Unless otherwise stated by EPA, not later than sixty  
5 (60) days after receiving EPA's notice that additional response  
6 activities are required pursuant to this Section, Respondents  
7 shall submit a work plan for the response activities to EPA for  
8 review and approval. Upon approval by EPA, the work plan is  
9 incorporated into this Order as a requirement of this Order and  
10 shall be an enforceable part of this Order. Upon approval of the  
11 work plan by EPA, Respondents shall implement the work plan  
12 according to the standards, specifications, and schedule in the  
13 approved work plan. Respondents shall notify EPA of their intent  
14 to perform such additional response activities within fifteen  
15 (15) days after receipt of EPA's request for additional response  
16 activities.

17  
18 **XIII. ENDANGERMENT AND EMERGENCY RESPONSE**

19 60. In the event of any action or occurrence during the  
20 performance of the Work which causes or threatens to cause a  
21 release of Waste Material from the Site that constitutes an  
22 emergency situation or may present an immediate threat to public  
23 health or welfare or the environment, Respondents shall, subject  
24 to Paragraph 61, immediately upon discovery take all appropriate  
25 action to prevent, abate, or minimize the threat, and shall  
26 immediately notify EPA's Remedial Project Manager (RPM) or, if  
27 the RPM is unavailable, EPA's Alternate RPM. (If neither of  
28 these persons is available, Respondents shall notify the EPA  
29 Emergency Response Unit, Region IX). Respondents shall take such  
30 action in consultation with EPA's RPM and in accordance with all  
31 applicable provisions of this Order, including but not limited to  
32 Health and Safety Plans and Contingency Plans submitted by  
33 Respondents in connection with this Order. Respondents shall  
34 also notify the ADEQ Emergency Response Unit and, to the extent  
35 feasible given the circumstances of the emergency, EPA shall

1 communicate with ADEQ regarding the response action and  
2 coordinate with local emergency authorities. In the event that  
3 Respondents fail to take appropriate response action as required  
4 by this Section, and EPA takes that action instead, Respondents  
5 shall reimburse EPA for all costs of the response action not  
6 inconsistent with the NCP.

7 61. Nothing in the preceding paragraph shall be deemed to  
8 limit any authority of the United States to take, direct, or  
9 order all appropriate action to protect human health and the  
10 environment or to prevent, abate, or minimize an actual or  
11 threatened release of Waste Material on, at, or from the Site.  
12

#### 13 XIV. EPA REVIEW OF SUBMISSIONS

14 62. After review of any deliverable, plan, report or other  
15 item which is required to be submitted for review and approval  
16 pursuant to this Order, EPA, after reasonable opportunity for  
17 review and comment by the State, shall: (a) approve, in whole or  
18 part, the submission; (b) approve the submission upon specified  
19 conditions after consulting with Respondents; (c) modify the  
20 submission to cure the deficiencies after consulting with  
21 Respondents and reaching consensus with them regarding the  
22 modifications and approve the modified submission; (d)  
23 disapprove, in whole or in part, the submission and require its  
24 modification and resubmission to EPA; or (e) any combination of  
25 the above. As used in this Order, the terms "approval by EPA,"  
26 "EPA approval," or a similar term means the action described in  
27 paragraphs (a), (b) or (c) of this paragraph.

28 63. In the event of approval, approval upon conditions, or  
29 modification by EPA, Respondents shall proceed to take any action  
30 required by the plan, report, or other item, as approved or  
31 modified by EPA. If EPA approves on conditions pursuant to  
32 Paragraph 62(b), EPA shall specify the deficiencies it has  
33 determined exist in the submittal, and Respondents shall, if  
34 requested by EPA, within 14 days or such other time as specified  
35 by EPA in such notice, meet such conditions and resubmit the

1 plan, report, or other item. If EPA requires Respondents to  
2 resubmit the plan, report or other item, the additional time  
3 required for revision and resubmittal shall not extend the due  
4 date for any deliverable listed in Table 4.1 of the SOW. In the  
5 event that EPA modifies the submission to cure the deficiencies  
6 pursuant to Paragraph 62(c) and the submission has a defect, EPA  
7 retains the right to seek civil penalties under section 106(b) of  
8 CERCLA, 42 U.S.C. § 9606(b), as provided in Section XXV of this  
9 Order.

10 64. For any disapproval pursuant to Paragraph 62(d), EPA  
11 shall specify the deficiencies it has determined exist in the  
12 submittal. Upon receipt of a notice of disapproval of the Vadose  
13 Zone Treatability Study Report, Additional Investigation Report,  
14 Vadose Zone Analytical Modeling Report or Groundwater Pilot Study  
15 Design Report, Respondents shall within forty-five (45) days or  
16 such other time as specified by EPA in its notice, correct the  
17 deficiencies and resubmit the deliverable. Upon receipt of a  
18 notice of disapproval of the O&M Manual for the Groundwater Pilot  
19 Study, Respondents shall within thirty (30) days or such other  
20 time as specified by EPA in its notice, correct the deficiencies  
21 and resubmit the O&M Manual. Upon receipt of a notice of  
22 disapproval of the Cap Design Report, Respondents shall within  
23 twenty-one (21) days or such other time as specified by EPA in  
24 its notice, correct the deficiencies and resubmit the Cap Design  
25 Report. Upon receipt of a notice of disapproval of the Cap  
26 Construction Report, the Groundwater Pilot Study Inspection  
27 Report or any other deliverable not listed in this Paragraph,  
28 Respondents shall within fifteen (15) days or such other time as  
29 specified by EPA in its notice, correct the deficiencies and  
30 resubmit the deliverable. Notwithstanding the notice of  
31 disapproval pursuant to Paragraph 62(d), Respondents shall  
32 proceed, at the direction of EPA, to take any action required by  
33 any non-deficient portion of the submission. Implementation of  
34 any non-deficient portion of a submission shall not prevent EPA  
35 from seeking civil penalties for violation of this Order under



1 section 106(b) of CERCLA, 42 U.S.C. § 9606(b), as provided in  
2 Section XXV of this Order.

3 65. If any submission is disapproved by EPA, Respondents  
4 shall be deemed to be in violation of this Order.

5  
6 **XV. PROGRESS REPORTS**

7 66. In addition to the other deliverables set forth in this  
8 Order and the SOW, Respondents shall provide 3 copies of written  
9 monthly progress reports to EPA and one copy to the State with  
10 respect to actions and activities undertaken pursuant to this  
11 Order. The written monthly progress reports shall: (a) describe  
12 the actions which have been taken toward achieving compliance  
13 with this Order during the previous month; (b) include a summary  
14 of all results of sampling and tests received or generated by  
15 Respondents or their contractors or agents in the previous month;  
16 (c) identify all work plans, plans and other deliverables  
17 required by this Order that have been completed and submitted  
18 during the previous month; (d) describe all actions, including,  
19 but not limited to, data collection and implementation of work  
20 plans, which are scheduled for the next six weeks and provide  
21 other information relating to the progress of construction,  
22 including, but not limited to, critical path diagrams, Gantt  
23 charts and Pert charts; (e) include information regarding  
24 percentage of completion, unresolved delays encountered or  
25 anticipated that may affect the future schedule for  
26 implementation of the Work, and a description of efforts made to  
27 mitigate those delays or anticipated delays; and (f) include a  
28 description of any modifications to the work plans or other  
29 schedules that Respondents have proposed to EPA or that have been  
30 approved by EPA. The progress reports shall be submitted on or  
31 before the 15th day of each month following the effective date of  
32 this Order. Respondents' obligation to submit progress reports  
33 continues until EPA gives Respondents written notice under  
34 paragraph 54.

1     **XVI.       QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS**

2       67. In conducting all sample collection and analysis  
3 activities required under this Order, Respondents shall use  
4 quality assurance, quality control, and chain of custody  
5 procedures in accordance with the portions of the following  
6 policies that are applicable to sampling and analysis activities  
7 performed by persons other than EPA: "EPA NEIC Policies and  
8 Procedures Manual," May 1978, revised May 1986, EPA-330/9-78-001-  
9 R; EPA's "Interim Guidelines and Specifications for Preparing  
10 Quality Assurance Project Plans," December 1980, (QAMS-005/80);  
11 EPA's "Data Quality Objective Guidance," (EPA/540/G87/003 and  
12 004); EPA Region IX's "Guidance for Preparing a Quality Assurance  
13 Project Plan for Superfund Remedial Projects" (9-QA-03-89, Sept.  
14 1989), and any subsequent amendments to such guidelines upon  
15 notification by EPA to Respondents of such amendment. To provide  
16 quality assurance and maintain quality control, Respondents  
17 shall:

- 18       a. Use only laboratories which have a documented Quality  
19 Assurance Program that complies with EPA guidance  
20 document QAMS-005/80.  
21  
22       b. Ensure that the laboratory used by the Respondents for  
23 analyses, performs according to a method or methods  
24 deemed satisfactory to EPA and submits all protocols to  
25 be used for analyses to EPA at least thirty (30) days  
26 before beginning analysis. Accepted EPA methods  
27 consist of those methods which are documented in the  
28 portions of the following policies that are applicable  
29 to analysis activities performed by persons other than  
30 EPA: "Contract Lab Program Statement of Work for  
31 Inorganic Analysis," and the "Contract Lab Program  
32 Statement of Work for Organic Analysis," dated February  
33 1988, and any amendments made thereto during the course  
34 of the implementation of this Order.  
35  
36       c. Ensure that EPA personnel and EPA's authorized  
37 representatives are allowed access to the laboratory  
38 and personnel utilized by the Respondents for analyses.  
39

40       68. Respondents shall notify EPA not less than ten (10)  
41 days in advance of any sample collection activity. At the  
42 request of EPA, Respondents shall allow split or duplicate

1 samples to be taken by EPA or its authorized representatives of  
2 any samples collected by Respondents with regard to the Site or  
3 pursuant to the implementation of this Order. In addition, EPA  
4 shall have the right to take any additional samples that EPA  
5 deems necessary, and will provide copies of results to  
6 Respondents' Project Coordinator. Upon request, EPA will allow  
7 Respondents to take split or duplicate samples of any samples EPA  
8 takes as part of its oversight of the Respondents' implementation  
9 of the Work.

10  
11 **XVII. COMPLIANCE WITH APPLICABLE LAWS**

12 69. All activities taken by Respondents pursuant to this  
13 Order shall be performed in accordance with the requirements of  
14 all Federal and state laws and regulations. EPA has determined  
15 that the activities contemplated by this Order if performed in  
16 accordance with the terms of this Order are consistent with the  
17 National Contingency Plan (NCP).

18 70. Except as provided in section 121(e) of CERCLA and the  
19 NCP, no permit shall be required for any portion of the Work  
20 conducted entirely on-Site. Where any portion of the Work  
21 requires a Federal or state permit or approval, Respondents shall  
22 submit timely applications and take all other actions necessary  
23 to obtain and to comply with all such permits or approvals. The  
24 proposed locations of the Unit B injection well as specified in  
25 the Scope of Work are within the Hassayampa Landfill, which is  
26 coextensive with the site as defined on the National Priorities  
27 List, and are considered on-site for purposes of this  
28 subparagraph.

29 71. This Order is not, and shall not be construed to be, a  
30 permit issued pursuant to any Federal or state statute or  
31 regulation.

32 72. All Waste Material removed from the Site shall be  
33 disposed of or treated at a facility approved by EPA's RPM and in  
34 accordance with: section 121(d)(3) of CERCLA, 42 U.S.C.  
35 § 9621(d)(3); the U.S. EPA "Revised Off-Site Policy," OSWER

1 Directive 9834.11, November 13, 1987; and all other applicable  
2 Federal, state, and local requirements.

3  
4 **XVIII. REMEDIAL PROJECT MANAGER**

5 73. All communications from Respondents to EPA of a  
6 technical nature, whether written or oral, shall be directed to  
7 EPA's Remedial Project Manager or Alternate Remedial Project  
8 Manager. Respondents shall submit to EPA three copies of all  
9 documents, including plans, reports, and other correspondence,  
10 which are developed pursuant to this Order, and shall send these  
11 documents by U.S. Mail, overnight mail, or hand delivery.

12 EPA's Remedial Project Manager is:

13 Tom Dunkelman, H-7-1  
14 U.S. Environmental Protection Agency, Region IX  
15 75 Hawthorne Street  
16 San Francisco, CA 94105  
17 (415) 744-2395  
18

19 EPA's Alternate Remedial Project Manager is:

20  
21 Nathan Lau, H-7-1  
22 U.S. Environmental Protection Agency, Region IX  
23 75 Hawthorne Street  
24 San Francisco, CA 94105  
25 (415) 744-2400

26 74. EPA has the unreviewable right to change its Remedial  
27 Project Manager and Alternate Remedial Project Manager. If EPA  
28 changes its Remedial Project Manager or Alternate Remedial  
29 Project Manager, EPA will inform Respondents in writing of the  
30 name, address, and telephone number of the new Remedial Project  
31 Manager or Alternate Remedial Project Manager.

32 75. EPA's RPM and Alternate RPM shall have the authority  
33 lawfully vested in a Remedial Project Manager (RPM) and On-Scene  
34 Coordinator (OSC) by the National Contingency Plan, 40 C.F.R.  
35 Part 300. EPA's RPM or Alternate RPM shall have authority,  
36 consistent with the National Contingency Plan, to halt any work  
37 required by this Order, and to take any necessary response  
38 action.

1           76. Within fifteen (15) days after the effective date of  
2 this Order, Respondents shall designate a Project Coordinator and  
3 shall submit the name, address, and telephone number of the  
4 Project Coordinator to EPA for review and approval. Respondents'  
5 Project Coordinator shall be responsible for overseeing  
6 Respondents' implementation of this Order. If Respondents wish  
7 to change their Project Coordinator, Respondents shall provide  
8 written notice to EPA, at least five (5) days prior to changing  
9 the Project Coordinator, of the name and qualifications of the  
10 new Project Coordinator. Respondents' selection of a Project  
11 Coordinator shall be subject to EPA approval.  
12

13       **XIX.       ACCESS TO SITE NOT OWNED BY RESPONDENTS**

14           77. To the extent that the Site or any other property to  
15 which access is required for the implementation of this Order is  
16 owned or controlled by persons other than Respondents,  
17 Respondents shall use their best efforts to secure from such  
18 persons written access approvals or agreements for Respondents,  
19 as well as for the United States and its representatives,  
20 including, but not limited to EPA's contractors, as necessary to  
21 effectuate this Order. Such approvals or agreements shall  
22 provide access for EPA, EPA's representatives and contractors,  
23 and Respondents or Respondents' authorized representatives and  
24 contractors, and such approvals or agreements shall specify that  
25 the Respondents are not EPA's representative. Respondents shall  
26 save and hold harmless the United States and its officials,  
27 agents, employees, contractors, subcontractors, or  
28 representatives for or from any and all claims or causes of  
29 action or other costs incurred by the United States including but  
30 not limited to attorneys fees and other expenses of litigation  
31 and settlement arising from or on account of acts or omissions of  
32 Respondents, their officers, directors, employees, agents,  
33 contractors, subcontractors, and any persons acting on their  
34 behalf or under their control, in carrying out activities  
35 pursuant to this Order, including any claims arising from any

1 designation of Respondents as EPA's authorized representatives  
2 under section 104(e) of CERCLA. Copies of such approvals or  
3 agreements shall be provided to EPA prior to Respondents'  
4 initiation of field activities on property for which such  
5 approval or agreement is applicable.

6 78. If any access required to complete the Work under this  
7 Order is not obtained within 120 days of the effective date of  
8 this Order, or within 45 days of the date EPA notifies the  
9 Respondents in writing that additional access beyond that  
10 previously secured is necessary, Respondents shall promptly  
11 notify EPA in writing, and shall include in that notification a  
12 summary of the steps Respondents have taken to attempt to obtain  
13 access. Respondents' "best efforts" to secure access shall  
14 include providing reasonable compensation to any off-Site  
15 property owner. Subject to the United States' non-reviewable  
16 discretion, EPA may use its legal authorities to assist in or  
17 obtain access for the Respondents, may perform those response  
18 actions with EPA contractors at the property in question, or may  
19 terminate the Order if Respondents cannot obtain access  
20 agreements. If EPA performs those tasks or activities with  
21 contractors and does not terminate the Order, Respondents shall  
22 perform all other activities not requiring access to that  
23 property, and shall reimburse EPA for all costs incurred in  
24 performing such activities. Respondents shall integrate the  
25 results of any such tasks undertaken by EPA into its reports and  
26 deliverables. Respondents shall reimburse EPA for all Response  
27 Costs not inconsistent with the NCP (including attorney fees)  
28 incurred by the United States in obtaining access for  
29 Respondents.

## 30 31 **XX. SITE ACCESS AND DATA/DOCUMENT AVAILABILITY**

32 79. Respondents shall allow EPA and its authorized  
33 representatives and contractors to enter and freely move about  
34 all property at the Site and off-Site areas subject to or  
35 affected by the Work, or where documents required to be prepared

1 or maintained by this Order are located, for the purposes of:  
2 inspecting conditions, activities, the results of activities,  
3 records, operating logs, and contracts related to the Site or  
4 Respondents and its representatives or contractors pursuant to  
5 this Order; reviewing the progress of the Respondents in carrying  
6 out the terms of this Order; conducting tests as EPA or its  
7 authorized representatives or contractors deem necessary; using a  
8 camera, sound recording device or other documentary type  
9 equipment; and verifying the data submitted to EPA by  
10 Respondents. Respondents shall allow EPA and its authorized  
11 representatives to enter the Site, to inspect and copy all  
12 records, files, photographs, documents, sampling and monitoring  
13 data, and other writings related to work undertaken in carrying  
14 out this Order. Nothing herein shall be interpreted as limiting  
15 or affecting EPA's right of entry or inspection authority under  
16 Federal law.

17 80. Respondents may assert a claim of business  
18 confidentiality covering part or all of the information submitted  
19 to EPA pursuant to the terms of this Order under 40 C.F.R.  
20 § 2.203, provided such claim is not inconsistent with section  
21 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7) or other provisions  
22 of law. This claim shall be asserted in the manner described by  
23 40 C.F.R. § 2.203(b) and substantiated by Respondents at the time  
24 the claim is made. Information determined to be confidential by  
25 EPA will be given the protection specified in 40 C.F.R. Part 2,  
26 Subpart B. If no such claim accompanies the information when it  
27 is submitted to EPA, it may be made available to the public by  
28 EPA without further notice to the Respondents. Respondents shall  
29 not assert confidentiality claims with respect to any data  
30 related to Site conditions, sampling, or monitoring.

31 81. Respondents shall maintain, for the period during which  
32 this Order is in effect, an index of documents that Respondents  
33 claim contain confidential business information. The index shall  
34 contain, for each document, an identification of the date,  
35 author, addressee, and subject of the document. Upon written

1 request from EPA, Respondents shall submit a copy of the index to  
2 EPA.

3  
4 **XXI. RECORD PRESERVATION**

5 82. Subject to Paragraph 80 and 85, Respondents shall  
6 provide to EPA upon request, copies of all documents and  
7 information within their possession and/or control or that of  
8 their contractors or agents relating to activities at the Site or  
9 to the implementation of this Order, including but not limited to  
10 sampling, analysis, chain of custody records, manifests, trucking  
11 logs, receipts, reports, sample traffic routing, correspondence,  
12 or other documents or information related to the Work.

13 Respondents shall also make available to EPA for purposes of  
14 investigation, information gathering, or testimony, their  
15 employees, agents, or representatives with knowledge of relevant  
16 facts concerning the performance of the Work.

17 83. Until six (6) years after EPA provides Respondents with  
18 notice pursuant to Paragraph 54 that all the Work required by  
19 this Order has been fully performed, each Respondent shall  
20 preserve and retain at least a single copy of all nonidentical  
21 records, documents, and recorded information of whatever kind,  
22 nature or description now in its possession or control or which  
23 come into its possession or control (including the documents in  
24 the possession or control of Respondents' contractors and agents  
25 on and after the effective date of this Order), that relate in  
26 any manner to the performance of the Work or liability of any  
27 person for response actions conducted and to be conducted at the  
28 Site, regardless of any corporate policy to the contrary.  
29 Respondents shall instruct their contractors and agents to  
30 preserve and retain at least a single copy of all non-identical  
31 documents, records, and recorded information of whatever kind,  
32 nature or description relating to the performance of the Work  
33 under this Order, or liability of any person for response actions  
34 conducted and to be conducted at the Site.



1           84. The document retention requirements set forth in  
2 Paragraph 83 of this Order shall not apply to drafts (other than  
3 those referred to by name in this Order), including any  
4 handwritten notes or comments of a Respondent or phone message  
5 slips, except any such draft or phone message slip that contains  
6 data relevant to the Work that is not otherwise being preserved  
7 under this Order.

8           85. At the conclusion of this document retention period,  
9 Respondents shall notify the United States at least ninety (90)  
10 calendar days prior to the destruction of any such records or  
11 documents, and, upon request by the United States, each  
12 Respondent shall deliver any such records or documents to EPA.  
13 The Respondents may assert that certain documents, records and  
14 other information are privileged under the attorney-client  
15 privilege or any other privilege recognized by federal law. If  
16 any Respondent asserts such a privilege, they shall provide EPA  
17 with the following: (1) the title of the document, record, or  
18 information; (2) the date of the document, record, or  
19 information; (3) the name and title of the author of the  
20 document, record, or information; (4) the name and title of each  
21 addressee and recipient; (5) a description of the subject of the  
22 document, record, or information; and (6) the privilege asserted  
23 by Respondent or Respondents. However, no documents, reports or  
24 other information created or generated pursuant to the  
25 requirements of this Order shall be withheld on the grounds that  
26 they are privileged.

27           86. Within thirty days (30) days after the effective date  
28 of this Order and after inquiry of all relevant personnel,  
29 Respondents shall each submit a written certification to EPA's  
30 RPM that they have retained at least a single copy of all non-  
31 identical records, documents or other recorded information  
32 relating to the potential liability of any party regarding the  
33 Site since notification of potential liability by the United  
34 States or the State or the filing of suit against it regarding

1 the Site, and that the retained copy has not been altered or  
2 mutilated.

3  
4 **XXII. DELAY IN PERFORMANCE**

5 87. Any delay in performance of this Order that, in EPA's  
6 judgment, is not properly justified by Respondents under the  
7 terms of this Paragraph shall be considered a violation of this  
8 Order. Any delay in performance of this Order shall not affect  
9 Respondents' obligations to fully perform all obligations under  
10 the terms and conditions of this Order.

11 88. Respondents shall notify EPA of any delay or  
12 anticipated delay in performing any requirement of this Order.  
13 Such notification shall be made by telephone to EPA's RPM or  
14 Alternate RPM within four (4) days after Respondents first knew  
15 or should have known that a delay might occur. Respondents shall  
16 adopt all reasonable measures to avoid or minimize any such  
17 delay. Within five (5) days after notifying EPA by telephone,  
18 Respondents shall provide written notification fully describing  
19 the nature of the delay, any justification for delay, any reason  
20 why Respondents should not be held strictly accountable for  
21 failing to comply with any relevant requirements of this Order,  
22 the measures planned and taken to minimize the delay, and a  
23 schedule for implementing the measures that will be taken to  
24 mitigate the effect of the delay. Increased costs or expenses  
25 associated with implementation of the activities called for in  
26 this Order is not a justification for any delay in performance.

27  
28 **XXIII. ASSURANCE OF ABILITY TO COMPLETE WORK**

29 89. Within thirty (30) days after the effective date of this  
30 Order, Respondents shall establish and maintain financial  
31 security in the amount of \$3 million in one of the following  
32 forms: (a) a surety bond guaranteeing performance of the Work;  
33 (b) one or more irrevocable letters of credit; (c) a trust fund;  
34 (d) a guarantee to perform the Work by one or more parent  
35 corporations that have a substantial business relationship with

1 at least one of the Respondents; or (e) documents submitted to  
2 EPA sufficient to demonstrate that one or more of the Respondents  
3 satisfy the requirements of 40 C.F.R. Part 264.143(f).

4 90. If Respondents seek to demonstrate the ability to  
5 complete the Work through a guarantee by a third party pursuant  
6 to Subparagraph 89(d) of this Order, Respondents shall  
7 demonstrate that the guarantor satisfies the requirements of 40  
8 C.F.R. Part 264.143(f). If Respondents seek to demonstrate  
9 ability to complete the Work by means of the financial test or  
10 the corporate guarantee pursuant to Subparagraph 89(d) or 89(e),  
11 they shall resubmit sworn statements conveying the information  
12 required by 40 C.F.R. Part 264.143(f) annually, on the  
13 anniversary of the effective date of this Order until EPA  
14 notifies Respondents as set out in Paragraph 54 that they have  
15 completed all the Work required under this Order. If EPA  
16 determines that such financial information is inadequate,  
17 Respondents shall, within thirty (30) days after receipt of EPA's  
18 notice of determination, obtain and present to EPA for approval  
19 one of the other three forms of financial assurance listed above.  
20 Respondents' inability to demonstrate financial ability to  
21 complete the Work shall not excuse performance of any activities  
22 required under this Order.

23 91. No later than fifteen (15) days prior to commencing any  
24 on-site Work, Respondents shall secure, and shall maintain until  
25 the first anniversary of receiving notification from EPA pursuant  
26 to Paragraph 54 that Respondents have completed the Work,  
27 comprehensive general liability insurance and automobile coverage  
28 with limits of two million dollars, combined single limit  
29 including as an additional insured the United States. In  
30 addition, for the duration of this Order, Respondents shall  
31 satisfy, or shall ensure that their contractors or subcontractors  
32 satisfy, all applicable laws and regulations regarding the  
33 provision of workers' compensation insurance for all persons  
34 performing the Work on behalf of Respondents in furtherance of  
35 this Order. Prior to commencement of the Work, Respondents shall

1 provide to EPA certificates of such insurance and a copy of each  
2 insurance policy. Respondents shall resubmit such certificates  
3 and copies of policies each year on the anniversary of the  
4 effective date of this Order. If Respondents demonstrate by  
5 evidence satisfactory to EPA that any contractor or subcontractor  
6 maintains insurance equivalent to that described above, or  
7 insurance covering the same risk but in a lesser amount, then,  
8 with respect to that contractor or subcontractor, Respondents  
9 need provide only that portion of the insurance described above  
10 which is not maintained by the contractor or subcontractor.  
11

#### 12 XXIV. UNITED STATES NOT LIABLE

13 92. The United States, by issuance of this Order, assumes no  
14 liability for any injuries or damages to persons or property  
15 resulting from acts or omissions by Respondents, or their  
16 directors, officers, employees, agents, representatives,  
17 successors, assigns, contractors, or consultants in carrying out  
18 any action or activity pursuant to this Order. Neither EPA nor  
19 the United States may be deemed to be a party to any contract  
20 entered into by Respondents or their directors, officers,  
21 employees, agents, successors, assigns, contractors, or  
22 consultants in carrying out any action or activity pursuant to  
23 this Order.  
24

#### 25 XXV. ENFORCEMENT AND RESERVATIONS

26 93. EPA reserves the right to bring an action against  
27 Respondents under section 107 of CERCLA, 42 U.S.C. § 9607, for  
28 recovery of any response costs incurred by the United States  
29 related to this Order and not reimbursed by Respondents. This  
30 reservation shall include but not be limited to past costs,  
31 direct costs, indirect costs, the costs of oversight, the costs  
32 of compiling the cost documentation to support oversight cost  
33 demand, as well as accrued interest as provided in section 107(a)  
34 of CERCLA.

35 94. Notwithstanding any other provision of this Order, at

1 any time during the response action, EPA may perform its own  
2 studies, complete the response action (or any portion of the  
3 response action) as provided in CERCLA and the NCP, and seek  
4 reimbursement from Respondents for its costs, or seek any other  
5 appropriate relief.

6 95. Nothing in this Order shall preclude EPA from taking  
7 any additional enforcement actions, including modification of  
8 this Order or issuance of additional Orders, and/or additional  
9 remedial or removal actions as EPA may deem necessary, or from  
10 requiring Respondents in the future to perform additional  
11 activities pursuant to CERCLA, 42 U.S.C. § 9606(a), et seq., or  
12 any other applicable law. Respondents shall be liable under  
13 CERCLA section 107(a), 42 U.S.C. § 9607(a), for the costs of any  
14 such additional actions.

15 96. Notwithstanding any provision of this Order, the United  
16 States hereby retains all of its information gathering,  
17 inspection and enforcement authorities and rights under CERCLA,  
18 RCRA and any other applicable statutes or regulations.

19 97. Respondents shall be subject to civil penalties under  
20 section 106(b) of CERCLA, 42 U.S.C. § 9606(b), of not more than  
21 \$25,000 for each day in which Respondents willfully violates, or  
22 fails to comply, or refuses to comply, with this Order without  
23 sufficient cause. In addition, failure to properly provide  
24 response action under this Order, or any portion hereof, without  
25 sufficient cause, may result in liability under section 107(c)(3)  
26 of CERCLA, 42 U.S.C. § 9607(c)(3), for punitive damages in an  
27 amount at least equal to, and not more than three times the  
28 amount of any costs incurred by the Fund as a result of such  
29 failure to take proper action.

30 98. Nothing in this Order shall constitute or be construed  
31 as a release from any claim, cause of action or demand in law or  
32 equity against any person for any liability it may have arising  
33 out of or relating in any way to the Site.

1            99. If a court issues an order that invalidates any  
2 provision of this Order or finds that Respondents have sufficient  
3 cause not to comply with one or more provisions of this Order,  
4 Respondents shall remain bound to comply with all provisions of  
5 this Order not invalidated by the court's order.  
6

7        **XXVI.        ADMINISTRATIVE RECORD**

8            100. Upon request by EPA, Respondents must submit to EPA all  
9 documents related to the selection of the response action for  
10 possible inclusion in the administrative record file.  
11

12        **XXVII.        EFFECTIVE DATE AND COMPUTATION OF TIME**

13            101. This Order shall be effective ten (10) days after the  
14 Order is signed by the Director of the Hazardous Waste Management  
15 Division, EPA Region IX, or five (5) days after the mailing of  
16 this order to Respondents, whichever is later. Unless otherwise  
17 specified in this Order, all times for performance of ordered  
18 activities shall be calculated from this effective date.  
19

20        **XXVIII.        OPPORTUNITY TO CONFER**

21            102. Respondents may, within seven (7) days after the  
22 effective date of this Order, request a conference with EPA's RPM  
23 and Assistant Regional Counsel to discuss the provisions of this  
24 Order. If requested, the conference shall occur at EPA's Region  
25 IX offices located at 75 Hawthorne Street in San Francisco,  
26 California.

27            103. The purpose and scope of the conference shall be  
28 limited to issues involving the implementation of the response  
29 actions required by this Order and the extent to which  
30 Respondents intend to comply with this Order. This conference is  
31 not an evidentiary hearing, and does not constitute a proceeding  
32 to challenge this Order. It does not give Respondents a right to  
33 seek review of this Order, or to seek resolution of potential  
34 liability, and no official stenographic record of the conference  
35 will be made. At any conference held pursuant to Respondents'

1 request, Respondents may appear in person or by an attorney or  
2 other representative.

3 104. Requests for a conference must be by telephone followed  
4 by written confirmation mailed that day to Tom Dunkelman (H-7-1),  
5 US EPA, 75 Hawthorne, San Francisco, California 94105.

6  
7 So Ordered, this 19<sup>th</sup> day of March, 1993.

8  
9 BY: *James J. Rodewicz*

10 Jeff Zelakson, Director

11 Hazardous Waste Management Division

12 U.S. Environmental Protection Agency  
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#### ATTACHMENTS

- A. "Attachment 1" is the ROD.
- B. "Attachment 2" is the SOW.